

	1	60
Human	MATAGGGSGADPGSRGLLRLLSFCVLLAGLCRGNSVERKIYIPLNKTA	PCVRLLNATHQI
Mouse	MATTRGGSGPDPGSRGLL-LLSFSVVL	AGLCGGNSVERKIYIPLNKTA
Drosophila	MEMR-----LNAASIWLL-ILSYGATIAQGER---	TRDKMYEPIGG-ASCFRRLNGTHQT
C.elegans	-----MKKWLV---IVLIIAGIRCDGFS	DQVFRTLFIGEGNACYRTFNKTHEF
	61	114
Human	GCQSSISGDTGVIHVVEKEEDLQWVLT	DG----P--NPPYMVLL
Mouse	GCQSSISGDTGVIHVVEKEEDLKWVLT	DG----P--NPPYMVLL
Drosophila	GCSSTYSGSVGLHLINVEADLEFLLSSP----	P--SPPYAPMIPPHLFTRNNLMRLKEA
C.elegans	GCQANRENENGLIVRIDKQEDFKNLDSCWNS	FYPKYSGKYWALLPVNLIRRD
	117	168
Human	TSRIAGLAVSLTK----P-SPASGFSPSVQCPNDG	FGVYSNSYGPEFAHCREIQWNSLG-
Mouse	TSRIAGLAVTLAK----P-NSTSSFSPSVQCPNDG	FGIYSNSYGPEFAHCKKTLWNELG-
Drosophila	GPKNISVLLINR----T-NQMKQFSHELNC	PNQYSGLNSTS-ETCDASNPAKNWNPWG-
C.elegans	-KCLSGIVLYNSGESIHPGDESTAASHDAECP	NAASDYLLQDKNEEYCERKINSRGAITR
	171	228
Human	NGLAYEDFSFPIFILLEDENETKVIKQCYQD	HNLSQNGSAPTFFPLCAMQLFSHMHAVISTA
Mouse	NGLAYEDFSFPIFILLEDENETKVIKQCYQD	HNLSQNGSAPSFPLCAMQLFSHMHAVISTA
Drosophila	TGLLHEDFPFPIYYIADLDQVTKLEKCFQD	FNNHNYETHALRSLCAVEVKSFMSAAVNT
C.elegans	DGLMKIDWRIQMVFIDNSTDLEIIEKCYSM	FNPKPKEDGSSGYPCGMSFRLANMAAGNSE
	232	275
Human	TCMRR-SS----IQSTFSIN-PEIVCDPLSDYN	VWSMLKP-----INTTGTLP--DDR
Mouse	TCMRR-SF----IQSTFSIN-PEIVCDPLSDYN	VWSMLKP-----INTSVGLEP--DVR
Drosophila	VCMRR-TN----FINNLGG---SKYCDPLEGR	NVSPCTPESQQSETTLETVHT--NEKF
C.elegans	ICYRRGKNDAKLFQMNIDSGDAPQLCGAMH	SDNIFAFPTP-----IPTSPNETIITSKY
	278	330
Human	VVAATRLDSRSFFWNVAPGAESAVASFVTQ	LAAAEAL----QKAPDVTTL-PRNVMFVFF
Mouse	VVAATRLDSRSFFWNVAPGAESAVASFVTQ	LAAAEAL----HKAPDVTTL-SRNVMFVFF
Drosophila	ILVTCRLDTTTFMDGVGLGAMDSLMGFAV	THVAYLLK---QLLPQSKD-LHNVLFVTF
C.elegans	MMVTARMDSFGMIPEISVGEVSVLTSIISV	LAAARSMGTQIEKWQASNTSNRNVFFAFF
	331	384
Human	QGETFDYIGSSRMVYDMEKGKFP----	VQLENVD--SFVELGQVALRTSLELWMHTDPVS
Mouse	QGETFDYIGSSRMVYDMENGKFP----	VRLLENID--SFVELGQVALRTSLDLWMHTDPMS
Drosophila	NGESYDYIGSQRFVYDMEKLQFP----	TESTGTPPIAFDNIDFMLDIGTLDDISNIKLHA
C.elegans	NGESLDYIGSGAAAYQMENGKFPQMIRSDR	THIHPIRPNELDYILEVQQIGVAKGRKYYV

FIGURE 1A

	384
Human	QGETFDYIGSSRMVYDMEKGKFP----VQLENVD--SFVELGQVALRTSLELWMHTDPVS
Mouse	QGETFDYIGSSRMVYDMENGKFP----VRLENID--SFVELGQVALRTSLDLWMHTDPMS
Drosophila	NGESYDYIGSQRFVYDMEKLQFP----TESTGTPPIAFDNIDFMLDIGTLDDISNIKLHA
C.elegans	NGESLDYIGSGAAAYQMENGKFPQMIRSDRTHIHPIRPNELDYILEVQQIGVAKGRKYV
	385 439
Human	QK-NESVRN---QVEDLLATLEKSGAGVPAVILRRPNQSQPLPPSSLQRFLLR-ARNISGV
Mouse	QK-NESVKN---QVEDLLATLEKSGAGVPEVVLRLRLAQSQLPPSSLQRFLLR-ARNISGV
Drosophila	LN-GTTLAQ---QILERLNNYAKS-PRYGFNLNIQSEMSAHLPP TSAQSFLRRDPNPNAL
C.elegans	HVDGERYQQNKTQTDRVIDRIERGLRSHAFDLEKPSGSGDRVPPASWHSFAKADAHVQSV
	440 491
Human	VLDHSGAFHNKYYQSIYDTAENINVSYP----EWLSPPEEDLNFVTD-----AKALADVA
Mouse	VLDHSGSFHNRYQSIYDTAENINVTYP----EWQSPPEEDLNFVTD-----AKALANVA
Drosophila	ILNARP---TNKYYHSTYDDADNVDFTYANTSKDFTQLTEVNDFKSLNPDSLQMKVRNVS
C.elegans	LLAPYG---KEYEYQVRVNSILDKNEWTE-----EREKAIQEIEAVSTA---ILAAAADYV
	492 550
Human	TVLGRALYELAGGTNFSDTVQADPQTVTRLLYG-FLIKANNSWFQSILRQDLRSYLGDP
Mouse	TVLARALYELAGGTNFSSSIQADPQTVTRLLYG-FLVRANNSWFQSILKHDLSYLDLDRP
Drosophila	SIVAMALYQITITGKEYTGTKVANPLMADEFLYC-FLQSADCPFLKFAASYPGSQ--LTNLP
C.elegans	GVETDEVVAKVD-KKLITTFIDCLITSNFWFDCDFMQKLDGGRYHKLFSNYGFNQKSTYI
	551 608
Human	LQHYIAVS--SPTNTTYVVQYALANLTGTVVNLTREQCQDPSKVPSENKDLYEYSWVQGP
Mouse	LQHYIAVS--SPTNTTYVVQYALANLTGKATNLTREQCQDPSKVPNESKDLYEYSWVQGP
Drosophila	PMRYISVLGGSQESSGYTYRLLGYLLSQLQPDHNRDCTD---LP-----LHYFAG----
C.elegans	SMESHTAF---PTVLHWLTFIFALGSDKETLNVKSEKSCSHLGQFQ----AMTYTWQPNP
	609 665
Human	LHSNETDRLPRCVRSTARLARALSPAFELS---QWSSTEYSTWTESRWKDIRARIFLIAS
Mouse	WNSNRTERLPQCVRSTVRLARALSPAFELS---QWSSTEYSTWAESRWKDIQARIFLIAS
Drosophila	FN-N-----IGECRLTTQNYSHALSPAFLIDGY-DWSSGMYSTWTESTWSQFSARIFLRPS
C.elegans	YTGN-----FSCLKSAIVKKVMVSPAVIDSQTPPEEMNTRYSTWMESVYIIESVNLYLMED
	666 709
Human	KELELITLTVGFG-ILIFSLIVTYCINAKADVLFIAPREPGAVSY-
Mouse	NELEFITLIVGFS-TLVFSLIVTYCINAKADVLFVAPREPGAVSY-
Drosophila	NVHQVTTLVGIV-VLIISFCLVYIISRSSEVLFEFLPASNAALFG
C.elegans	ASFEYTMILIAVISALLSIFAVGRCSETTFIVDEGEPAEAGEPEL-

FIGURE 1B